

SEQUENCE LISTING

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<110> Qin, Ning

Codd, Ellen

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<120> cDNA encoding the Calcium Channel Alpha2Delta-4 Subunit

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<170> PatentIn Ver. 2.1

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:

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oligonucleotide

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peptide

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Cys

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peptide

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<211> 1090

<212> PRT

<213> Homo sapiens

<400> 10

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Ala Asp Thr Phe Gly Gly Asp Leu Tyr Asn Thr Val Thr Lys Tyr Ser

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Gly Ser Leu Leu Leu Gln Lys Lys Tyr Lys Asp Val Glu Ser Ser Leu

35 40 45

Lys Ile Glu Glu Val Asp Gly Leu Glu Leu Val Arg Lys Phe Ser Glu

15 50 55 60

Asp Met Glu Asn Met Leu Arg Arg Lys Val Glu Ala Val Gln Asn Leu

65 70 75 80

20 Val Glu Ala Ala Glu Glu Ala Asp Leu Asn His Glu Phe Asn Glu Ser

85 90 95

Leu Val Phe Asp Tyr Tyr Asn Ser Val Leu Ile Asn Glu Arg Asp Glu

100 105 110

25

Lys Gly Asn Phe Val Glu Leu Gly Ala Glu Phe Leu Leu Glu Ser Asn

115 120 125

Ala His Phe Ser Asn Leu Pro Val Asn Thr Ser Ile Ser Ser Val Gln

130 135 140
 Leu Pro Thr Asn Val Tyr Asn Lys Asp Pro Asp Ile Leu Asn Gly Val
 145 150 155 160
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 Tyr Met Ser Glu Ala Leu Asn Ala Val Phe Val Glu Asn Phe Gln Arg
 165 170 175
 Asp Pro Thr Leu Thr Trp Gln Tyr Phe Gly Ser Ala Thr Gly Phe Phe
 10 180 185 190
 Arg Ile Tyr Pro Gly Ile Lys Trp Thr Pro Asp Glu Asn Gly Val Ile
 195 200 205
 15 Thr Phe Asp Cys Arg Asn Arg Gly Trp Tyr Ile Gln Ala Ala Thr Ser
 210 215 220
 Pro Lys Asp Ile Val Ile Leu Val Asp Val Ser Gly Ser Met Lys Gly
 225 230 235 240
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 Leu Arg Met Thr Ile Ala Lys His Thr Ile Thr Thr Ile Leu Asp Thr
 245 250 255
 Leu Gly Glu Asn Asp Phe Val Asn Ile Ile Ala Tyr Asn Asp Tyr Val
 25 260 265 270
 His Tyr Ile Glu Pro Cys Phe Lys Gly Ile Leu Val Gln Ala Asp Arg
 275 280 285

Asp Asn Arg Glu His Phe Lys Leu Leu Val Glu Glu Leu Met Val Lys

290

295

300

Gly Val Gly Val Val Asp Gln Ala Leu Arg Glu Ala Phe Gln Ile Leu

5 305

310

315

320

Lys Gln Phe Gln Glu Ala Lys Gln Gly Ser Leu Cys Asn Gln Ala Ile

325

330

335

10 Met Leu Ile Ser Asp Gly Ala Val Glu Asp Tyr Glu Pro Val Phe Glu

340

345

350

Lys Tyr Asn Trp Pro Asp Cys Lys Val Arg Val Phe Thr Tyr Leu Ile

355

360

365

15

Gly Arg Glu Val Ser Phe Ala Asp Arg Met Lys Trp Ile Ala Cys Asn

370

375

380

Asn Lys Gly Tyr Tyr Thr Gln Ile Ser Thr Leu Ala Asp Thr Gln Glu

20 385

390

395

400

Asn Val Met Glu Tyr Leu His Val Leu Ser Arg Pro Met Val Ile Asn

405

410

415

25 His Asp His Asp Ile Ile Trp Thr Glu Ala Tyr Met Asp Ser Lys Leu

420

425

430

Leu Ser Ser Gln Ala Gln Ser Leu Thr Leu Leu Thr Thr Val Ala Met

435

440

445

Pro Val Phe Ser Lys Lys Asn Glu Thr Arg Ser His Gly Ile Leu Leu

450

455

460

5 Gly Val Val Gly Ser Asp Val Ala Leu Arg Glu Leu Met Lys Leu Ala

465

470

475

480

Pro Arg Tyr Lys Leu Gly Val His Gly Tyr Ala Phe Leu Asn Thr Asn

485

490

495

10

Asn Gly Tyr Ile Leu Ser His Pro Asp Leu Arg Pro Leu Tyr Arg Glu

500

505

510

Gly Lys Lys Leu Lys Pro Lys Pro Asn Tyr Asn Ser Val Asp Leu Ser

15

515

520

525

Glu Val Glu Trp Glu Asp Gln Ala Glu Ser Leu Arg Thr Ala Met Ile

530

535

540

20 Asn Arg Glu Thr Gly Thr Leu Ser Met Asp Val Lys Val Pro Met Asp

545

550

555

560

Lys Gly Lys Arg Val Leu Phe Leu Thr Asn Asp Tyr Phe Phe Thr Asp

565

570

575

25

Ile Ser Asp Thr Pro Phe Ser Leu Gly Ala Val Leu Ser Arg Gly His

580

585

590

Gly Glu Tyr Ile Leu Leu Gly Asn Thr Ser Val Glu Glu Gly Leu His

595 600 605

Asp Leu Leu His Pro Asp Leu Ala Leu Ala Gly Asp Trp Ile Tyr Cys
610 615 620

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Ile Thr Asp Ile Asp Pro Asp His Arg Lys Leu Ser Gln Leu Glu Ala
625 630 635 640

Met Ile Arg Phe Leu Thr Arg Lys Asp Pro Asp Leu Glu Cys Asp Glu
10 645 650 655

Glu Leu Val Arg Glu Val Leu Phe Asp Ala Val Val Thr Ala Pro Met
660 665 670

15

Glu Ala Tyr Trp Thr Ala Leu Ala Leu Asn Met Ser Glu Glu Ser Glu
675 680 685

His Val Val Asp Met Ala Phe Leu Gly Thr Arg Ala Gly Leu Leu Arg
690 695 700

20

Ser Ser Leu Phe Val Gly Ser Glu Lys Val Ser Asp Arg Lys Phe Leu
705 710 715 720

Thr Pro Glu Asp Glu Ala Ser Val Phe Thr Leu Asp Arg Phe Pro Leu
25 725 730 735

Trp Tyr Arg Gln Ala Ser Glu His Pro Ala Gly Ser Phe Val Phe Asn
740 745 750

Leu Arg Trp Ala Glu Gly Pro Glu Ser Ala Gly Glu Pro Met Val Val

755

760

765

Thr Ala Ser Thr Ala Val Ala Val Thr Val Asp Lys Arg Thr Ala Ile

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770

775

780

Ala Ala Ala Ala Gly Val Gln Met Lys Leu Glu Phe Leu Gln Arg Lys

785

790

795

800

10 Phe Trp Ala Ala Thr Arg Gln Cys Ser Thr Val Asp Gly Pro Tyr Thr

805

810

815

Gln Ser Cys Glu Asp Ser Asp Leu Asp Cys Phe Val Ile Asp Asn Asn

820

825

830

15

Gly Phe Ile Leu Ile Ser Lys Arg Ser Arg Glu Thr Gly Arg Phe Leu

835

840

845

Gly Glu Val Asp Gly Ala Val Leu Thr Gln Leu Leu Ser Met Gly Val

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850

855

860

Phe Ser Gln Val Thr Met Tyr Asp Tyr Gln Ala Met Cys Lys Pro Ser

865

870

875

880

25 Ser His His His Ser Ala Ala Gln Pro Leu Val Ser Pro Ile Ser Ala

885

890

895

Phe Leu Thr Ala Thr Arg Trp Leu Leu Gln Glu Leu Val Leu Phe Leu

900

905

910

5 Lys Ser Val Phe His His Ser His Lys His Lys Lys Gln Asp Pro Leu
 930 935 940

10

15

Pro Thr Cys Asp Cys Ser Ile Phe Pro Pro Val Leu Gln Glu Ala Thr
995 1000 1005

20 Glu Val Lys Tyr Asn Ala Ser Val Lys Cys Asp Arg Met Arg Ser Gln
 1010 1015 1020

Lys Leu Arg Arg Arg Pro Asp Ser Cys His Ala Phe His Pro Glu Val

1025 1030 1035 1040

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Arg Val Glu Ala Asp Arg Gly Trp Ala Gly Phe Ser Ser Pro Asn Pro
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Leu Cys Leu Gly Leu Cys Pro Cys Arg Gln Glu His Ile Gly Met Pro

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Met Asn Thr Pro Val Pro Val Leu Leu Gly Gly Asn Ile Arg Val Tyr

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1080

1085

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Ala Leu

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<210> 11

<211> 188

<212> DNA

<213> Homo sapiens

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<400> 11

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ctggaaac

188

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<210> 12

<211> 58

<212> PRT

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<213> Homo sapiens

<400> 12

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Trp Ile Pro Leu Gln Pro Met Pro Val Ala Trp Ala Phe Val Gln Lys

5 20 25 30

Thr Ser Ala Leu Leu Trp Leu Leu Leu Leu Gly Thr Ser Leu Ser Pro

35 40 45

10 Ala Trp Gly Gln Ala Lys Ile Pro Leu Glu

50 55

15 <210> 13

<211> 188

<212> DNA

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<210> 14

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30 <213> Homo sapiens

Glu Asn Ala Gln Asp Cys Gly Gly Ala Ser Asp Thr Ser Ala Ser Ser Pro

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Pro Leu Leu Leu Leu Pro Val Cys Ala Trp Gly Leu Leu Pro Gln Leu

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Leu Arg

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